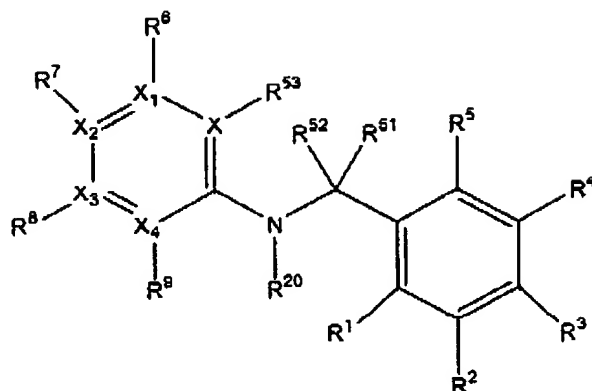


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CLAIMS:

1. (currently amended) A compound of Formula I:



Formula I

its prodrug form or a pharmaceutically acceptable salt thereof, wherein:

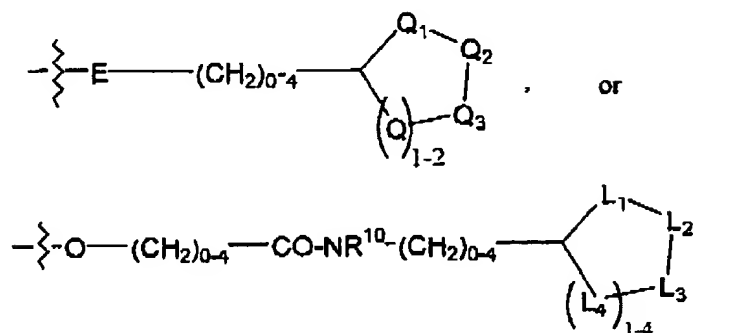
R^1 represents OH, COOH, COO- C_{1-4} alkyl, CH_2OR^{10} , SO_2-OH , O- SO_2-OH , O- SO_2-OC_{1-4} alkyl, OP(O)(OH) $_2$, or OPO_3C_{1-4} alkyl;

R^2 , R^3 , R^4 , and R^5 independently at each occurrence represent H, SH, OR^{10} , halogen, $COOR^{10}$, $CONR^{11}R^{12}$, optionally substituted heterocyclyl, C_{4-14} cycloalkyl- C_{1-4} alkyl, C_{1-4} alkyl aryl, optionally substituted C_{1-14} straight chain, branched or cyclo alkyl, $NR^{10}R^{24}$, 4-carbamimidoylphenylazo, (2-morpholin-4-ylethylcarbamoyl)methoxy, 4-carbamimidoyl-phenylcarbamoyl, $N=CH-N(CH_3)_2$, 1,3-dioxo-1,3-dihydroisoindol-2-yl, toluene-4-sulfonylamino, 3-(4-carbamimidoylphenylcarbamoyl)-4-hydroxyphenylsulfanyl, $O(CH_2)_5COOC_2H_5$, $O(CH_2)_5COOH$, $(CH_2)_{1-7}-NR^{33}R^{34}$, $(CH_2)_{1-4}-COOR^{33}$, $O-(CH_2)_{1-3}-CO-het$, $O-(CH_2)_{1-2}-NH-CO-aryl$, $O-(CH_2)_{0-2}-NR^{10}-CO-NR^{10}R^{33}$, $O-(CH_2)_{0-2}-C(O)-NR^{33}R^{34}$, $O-(CH_2)_{1-4}-COOR^{10}$, $O-(CH_2)_{1-3}-het-R^{32}$, O -optionally substituted cycloalkyl, $O-(CH_2)_{1-4}-NR^{10}-COO-t-butyl$, $O-(CH_2)_{1-4}-NR^{10}R^{33}$, $O-(CH_2)_{1-4}-NR^{10}-C(O)-C_{0-3}-alkyl$ -optionally substituted aryl, $O-(CH_2)_{0-6}$ -optionally substituted aryl, $(CH_2)_{1-4}-NH-C(O)O-(CH_2)_{1-4}-PhR^{13}R^{14}$, NO_2 , $O-(CH_2)_{0-4}-C(O)-NH-$

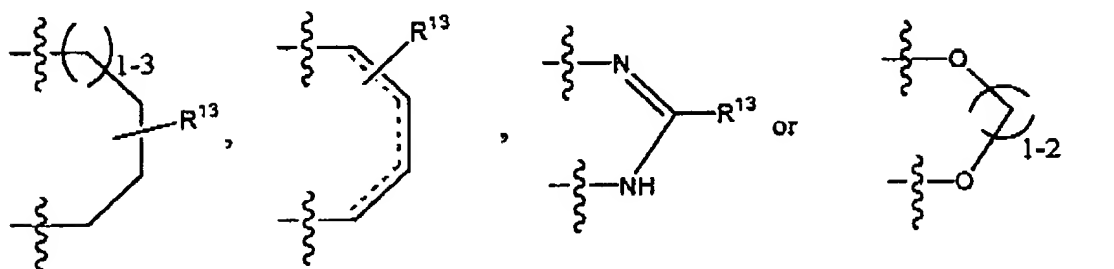
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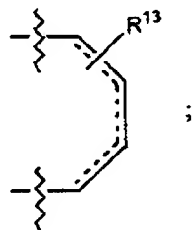
tetrahydro carboline, SO_3H , $\text{CH}(\text{OH})\text{COOR}^{10}$, $\text{NR}^{10}\text{R}^{28}$, $\text{O}-(\text{CH}_2)_{1-3}$ -optionally substituted het, $\text{CH}_2\text{COOCH}_3$, $\text{CH}=\text{CH}-\text{COOCH}_3$,



alternatively R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 taken together form



R^6 , R^9 and R^{53} independently at each occurrence represents H, halogen, cyano, C_{1-4} alkyl, C_{1-4} halogenated alkyl, NO_2 , O-aryl or OR^{11} ;
 alternatively R^6 and R^{53} taken together form



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~~R⁷ and R⁸ independently at each occurrence represent OH, CF₃, H, COOH, NO₂, C₁₋₄ alkyl, OC₁₋₄ alkyl, O-aryl, halogen, cyano, or a basic group selected from guanidino, NH(CH=NH)NH₂, C(=NH)N(R¹⁰)₂, C(=NH)-NH-NH₂, C(=O)N(R¹⁰)₂, 2-imidazoline, N-amidinomorpholine, N-amidino piperidine, 4-hydroxy-N-amidino piperidine, N-amidino pyrrolidine, tetrahydro pyrimidine, C(O)CH₂NH₂, C(O)NHCH₂CN, NHCH₂CN, and thiazolidin-3-yl-methylideneamine; with the proviso that only one of R⁷ and R⁸ represent a basic group;~~

R⁷ is a basic group selected from guanidino, NH(CH=NH)NH₂, C(=NH)N(R¹⁰)₂, C(=NH)-NH-NH₂, C(=O)N(R¹⁰)₂, 2-imidazoline, N-amidinomorpholine, N-amidino piperidine, 4-hydroxy-N-amidino piperidine, N-amidino pyrrolidine, tetrahydro pyrimidine, C(O)CH₂NH₂, C(O)NHCH₂CN, NHCH₂CN, and thiazolidin-3-yl-methylideneamine and R⁸ is OH, CF₃, H, COOH, NO₂, C₁₋₄ alkyl, OC₁₋₄ alkyl, O-aryl, halogen, or cyano; or, alternatively, R⁸ is a basic group selected from guanidino, NH(CH=NH)NH₂, C(=NH)N(R¹⁰)₂, C(=NH)-NH-NH₂, C(=O)N(R¹⁰)₂, 2-imidazoline, N-amidinomorpholine, N-amidino piperidine, 4-hydroxy-N-amidino piperidine, N-amidino pyrrolidine, tetrahydro pyrimidine, C(O)CH₂NH₂, C(O)NHCH₂CN, NHCH₂CN, and thiazolidin-3-yl-methylideneamine and R⁷ is OH, CF₃, H, COOH, NO₂, C₁₋₄ alkyl, OC₁₋₄ alkyl, O-aryl, halogen, or cyano;

R¹⁰ independently at each occurrence represents H, (CH₂)₀₋₂-aryl, C₁₋₄ halo alkyl, or C₁₋₁₄ straight chain, branched or cyclo alkyl, and alternatively, when one atom is substituted with two R¹⁰ groups, the atom along with the R¹⁰ groups can form a five to 10 membered ring structure;

X is carbon;

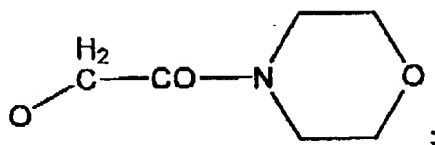
X₁, X₂, X₃ and X₄ independently at each occurrence represent a carbon or a nitrogen atom;

R¹¹ and R¹² independently at each occurrence represent H or C₁₋₄ alkyl;

R¹³ represents H, OH, bromo, methyl, OC₁₋₄ alkyl, OAr, OC₅₋₁₀ cycloalkyl, OCH₂CN, O(CH₂)₁₋₂NH₂, OCH₂COO-C₁₋₄ alkyl or

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R^{20} represents H or OH;

R^{24} represents R^{10} , $(CH_2)_{1-4}$ -optionally substituted aryl, $(CH_2)_{0-4}OR^{10}$, $CO-(CH_2)_{1-2}-N(R^{10})_2$, $CO(CH_2)_{1-4}-OR^{10}$, $(CH_2)_{1-4}-COOR^{10}$, $(CH_2)_{0-4}-N(R^{10})_2$, SO_2R^{10} , COR^{10} , $CON(R^{10})_2$, $(CH_2)_{0-4}$ -aryl- $COOR^{10}$, $(CH_2)_{0-4}$ -aryl- $N(R^{10})_2$, or $(CH_2)_{1-4}$ -het-aryl;

R^{28} represents $(CH_2)_{1-2}$ -Ph-O- $(CH_2)_{0-2}$ -het- R^{30} , C(O)-het, CH_2 -Ph- CH_2 -het- $(R^{30})_{1-3}$, $(CH_2)_{1-4}$ -cyclohexyl- R^{31} , CH_2 -Ph-O-Ph- $(R^{30})_{1-2}$, CH_2 -(CH_2OH)-het- R^{30} , CH_2 -Ph-O-cycloalkyl- R^{31} , CH_2 -het-C(O)- CH_2 -het- R^{30} , or CH_2 -Ph-O- (CH_2) -O-het- R^{30} ;

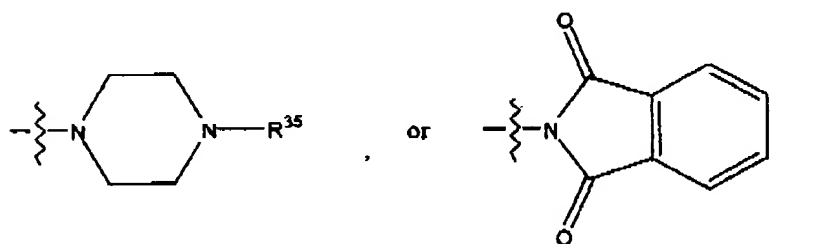
R^{30} represents $SO_2N(R^{10})_2$, H, NHOH, amidino, or $C(=NH)CH_3$;

R^{31} represents R^{30} , amino-amidino, $NH-C(=NH)CH_3$ or R^{10} ;

R^{32} represents H, $C(O)-CH_2-NH_2$, or $C(O)-CH(CH_2CH_3)-NH_2$;

R^{33} and R^{34} independently at each occurrence represent R^{10} , $(CH_2)_{0-4}$ -Ar, optionally substituted aryl, $(CH_2)_{0-4}$ optionally substituted heteroaryl, $(CH_2)_{1-4}$ -CN, $(CH_2)_{1-4}-N(R^{10})_2$, $(CH_2)_{1-4}-OH$, $(CH_2)_{1-4}-SO_2-N(R^{10})_2$;

alternatively, R^{33} and R^{34} along with the nitrogen atom that they are attached to forms a 4 to 14 atom ring structure selected from tetrahydro-1H-carboline; 6,7-Dialkoxyoxy-2-substituted 1,2,3,4-tetrahydro-isoquinoline,



R^{35} represents R^{10} , SO_2-R^{10} , COR^{10} , or $CONHR^{10}$;

E represents a bond, $S(O)_{0-2}$, O or NR^{10} ;

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$Q, Q^1, Q^2, Q^3, L^1, L^2, L^3$ and L^4 independently at each occurrence represent N-natural amino acid side chain, CHR^{10} , O, NH, $S(O)_{0-2}$, $N-C(O)-NHR^{10}$, $SO_2-N(R^{10})_2$, $N-C(O)-NH-(CH_2)_{1-4}-R^{26}$, NR^{10} , N-heteroaryl, $N-C(=NH)-NHR^{10}$, or $N-C(=NH)C_{1-4}$ alkyl;
 R^{26} represents OH, NH_2 , or SH;

R^{51} and R^{52} independently represent COOH, CH_2OH , CH_2COOH , COOR, CH_2COOR , alkyl or CO- NH_2 ; alternatively

R^{51} and R^{52} taken together represent =O, =S, = CH_2 or = NR^{10} ;

~~R^{53} represents H, halogen, cyano, C_{1-4} alkyl, C_{1-4} halogenated alkyl, NO_2 , O-aryl or OR^{11} ;~~

with the proviso that at least two of X_1, X_2, X_3 and X_4 represent a carbon atom, and when any of X_1, X_2, X_3 and X_4 represent a nitrogen atom the corresponding substituent does not exist.

2. (original) A compound of Claim 1 wherein

R^1 represents OH or COOH;

R^{20} represents H;

R^{51} and R^{52} taken together form =O; and

X_1, X_2, X_3 , and X_4 represent C.

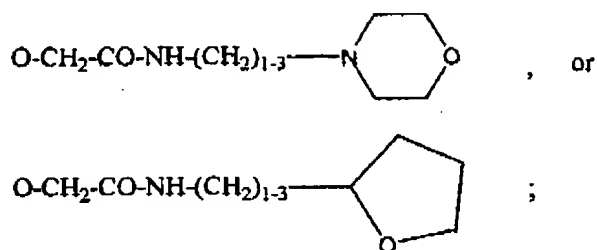
3. (original) A compound of Claim 2 wherein:

R^2 represents halo, H, NH-CO-Ph, *i*-propyl, OH, OCH₃, OC₂H₅, CH(OH)COOH, O-*i*-propyl, SO₃H, NH₂, CH(OH)COOC₁₋₂ alkyl, CH₃, NO₂ or Ph;

R^3 represents H, OH, NH₂ OC₁₋₄ alkyl, C_{1-4} alkyl, NHCH₃, O-(CH₂)₁₋₃-OCO- C_{1-2} alkyl, NH-C(O) C_{1-2} alkyl, O-(CH₂)₁₋₂-CO-NH₂, Ph, NHCOCF₃, N=CH-N(CH₃)₂, O-CH₂-CO-NH-(CH₂)₁₋₃-Ph,

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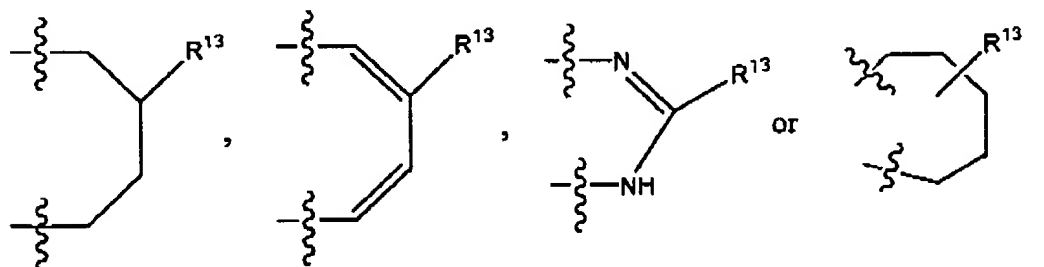
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R^4 represents H, C_{1-4} alkyl, halogen, *i*-propyl, OH, NH_2 3-nitro-phen-1-yl, NH-CO-CH_3 , $\text{CH}_2\text{-NH-(CH}_2\text{)}_3\text{-Ph}$, 2,4-difluoro-phen-1-yl, NHCOCF_3 , benzo[1,3]dioxol-5-yl, 4-Carbamimidoyl-phenylazo, 3-Hydroxy-4-carboxyl-phenylsulfanyl; 1,3-Dioxo-indan-2-yl, or toluene-4-sulfonylamino;

R^5 represents H or OH;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form



R^6 represents H;

R^7 represents C(=NH)-NH_2 or NH-C(=NH)-NH_2 ;

R^8 represents H or halogen; and

R^9 represents H.

4. (original) A compound of claim 3 wherein

R^2 represents halo, H, NH-CO-Ph , *i*-propyl, OH, CH_3 , or NO_2 ;

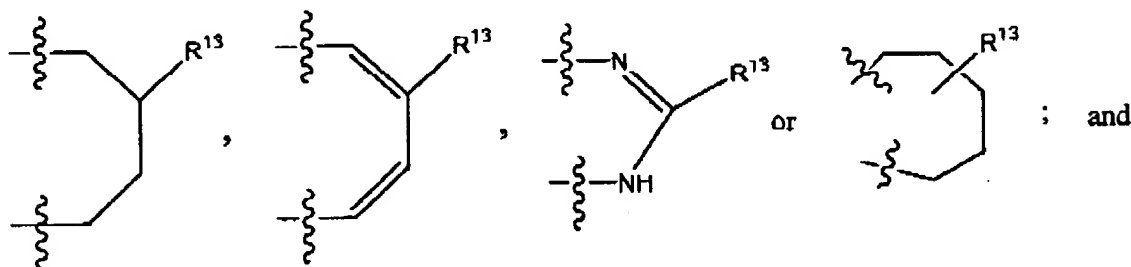
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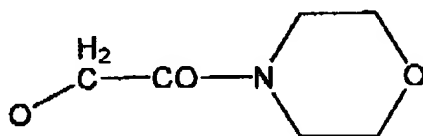
R^3 represents H, OH, NH_2 , OC_{1-2} alkyl, C_{1-4} alkyl, $\text{O}-(\text{CH}_2)_{1-3}-\text{OCO}-\text{C}_{1-2}$ alkyl, $\text{NH}-\text{C}(\text{O})\text{CH}_3$, $\text{O}-\text{CH}_2-\text{CO}-\text{NH}_2$, Ph, NHCOCF_3 , $\text{N}=\text{CH}-\text{N}(\text{CH}_3)_2$, $\text{O}-\text{CH}_2-\text{CO}-\text{NH}-(\text{CH}_2)_2-\text{Ph}$;

R^4 represents H, CH_3 , methoxy, halogen, *i*-propyl, 3-nitro-phen-1-yl, NHCOCF_3 , benzo[1,3]dioxol-5-yl, NHCOCH_3 , 4-Carbamimidoyl-phenylazo, 3-Hydroxy-4-carboxyl-phenylsulfanyl or 1,3-Dioxo-indan-2-yl;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form



R^{13} represents C_{1-2} alkyl, OH, $\text{O}(\text{CH}_2)_{1-2}-\text{NH}_2$, H, or



5. (original) A compound of Claim 4 wherein

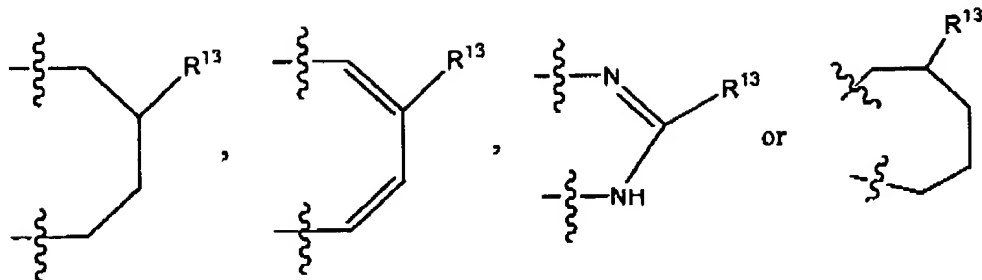
R^3 represents H, OH, NH_2 , OC_{1-2} alkyl, C_{1-4} alkyl, $\text{O}-\text{CH}_2-\text{OCO}-\text{CH}_3$, $\text{NH}-\text{C}(\text{O})\text{CH}_3$, $\text{O}-\text{CH}_2-\text{CO}-\text{NH}_2$;

R^4 represents H, CH_3 , halogen, *i*-propyl, benzo[1,3]dioxol-5-yl, or 1,3-Dioxo-indan-2-yl;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form

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6. (original) A compound of Claim 5 wherein

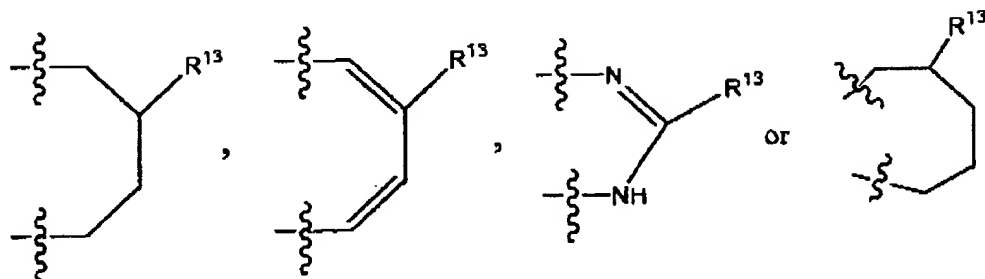
R^2 represents H or halogen;

R^3 represents H, OH or NH_2 ;

R^4 represents H, CH_3 , halogen or benzo[1,3]dioxol-5-yl;

R^5 represents H; or

R^3 and R^4 or taken together to form



7. (original) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of (i) a compound; or (ii) a pharmaceutically acceptable salt of a compound of Claim 1.

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8. (original) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound or a pharmaceutically acceptable salt of a compound of Claim 4.

9. (canceled)

10. (original) A compound of Claim 6, wherein the compound is selected from:

N-(4-Carbamimidoyl-phenyl)-2-hydroxy-3-iodo-5-methyl-benzamide;

3,5-Dibromo-N-(4-carbamimidoyl-phenyl)-2,4-dihydroxy-benzamide;

5-Bromo-N-(4-carbamimidoyl-phenyl)-2,4-dihydroxy-3-iodo-benzamide;

3-Hydroxy-naphthalene-2-carboxylic acid (6-guanidino-pyridin-3-yl)-amide; and

3-Hydroxy-7-methoxy-naphthalene-2-carboxylic acid (4-guanidino-phenyl)-amide.

11. (original) A compound of Claim 1 wherein

R¹ represents OH or COOH;

R²⁰ represents H;

R⁵¹ and R⁵² taken together form =O;

X₁ represents N; and

X₂, X₃, and X₄ represent C.

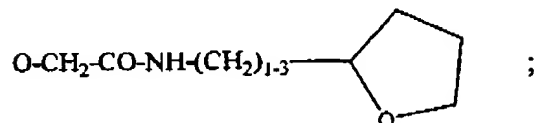
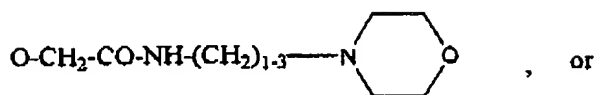
12. (original) A compound of Claim 1 wherein

R² represents halo, H, NH-CO-Ph, *i*-propyl, OH, CH₃, NO₂ or Ph;

R³ represents H, OH, NH₂, OC₁₋₄ alkyl, C₁₋₄ alkyl, O-(CH₂)₁₋₃-OCO-C₁₋₂ alkyl, NH-C(O)C₁₋₂ alkyl, O-(CH₂)₁₋₂-CO-NH₂, Ph, NHCOCF₃, N=CH-N(CH₃)₂, O-CH₂-CO-NH-(CH₂)₁₋₃-Ph,

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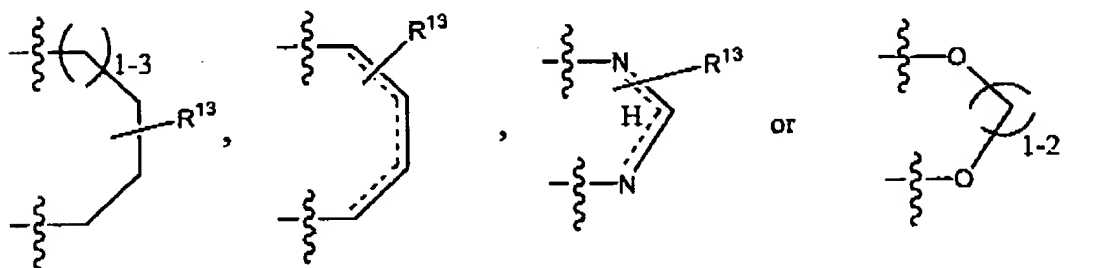
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R^4 represents H, C_{1-4} alkyl, halogen, *i*-propyl, OH, NH_2 3-nitro-phen-1-yl, $\text{NH}-\text{CO}-\text{CH}_3$, $\text{CH}_2-\text{NH}-(\text{CH}_2)_3-\text{Ph}$, 2,4-difluoro-phen-1-yl, NHCOCF_3 , benzo[1,3]dioxol-5-yl, 4-Carbamimidoyl-phenylazo, 3-Hydroxy-4-carboxyl-phenylsulfanyl; 1,3-Dioxo-indan-2-yl, or toluene-4-sulfonylamino;

R^5 represents H or OH;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form



R^6 represents H;

R^7 represents $\text{C}(=\text{NH})-\text{NH}_2$ or $\text{NH}-\text{C}(=\text{NH})-\text{NH}_2$;

R^8 represents H or halogen; and

R^9 represents H.

13. (original) A compound of claim 12 wherein

R^2 represents halo, H, $\text{NH}-\text{CO}-\text{Ph}$, *i*-propyl, OH, CH_3 , or NO_2 ;

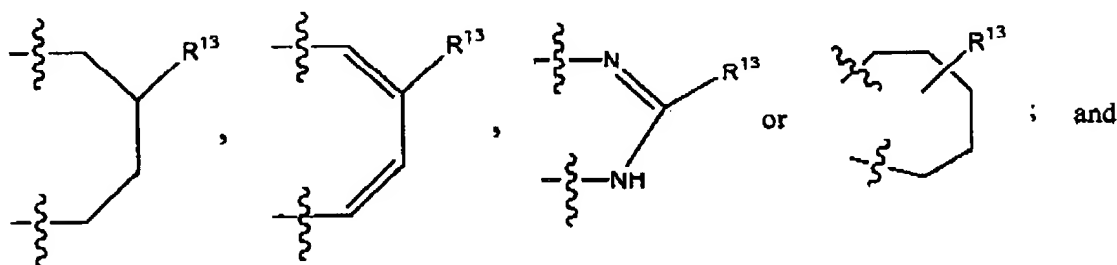
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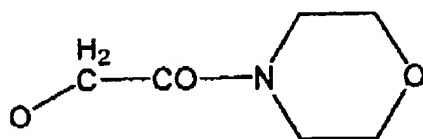
R^3 represents H, OH, NH_2 , OC_{1-2} alkyl, C_{1-4} alkyl, $O-(CH_2)_{1-3}-OCO-C_{1-2}$ alkyl, $NH-C(O)CH_3$, $O-CH_2-CO-NH_2$, Ph, $NHCOCF_3$, $N=CH-N(CH_3)_2$, $O-CH_2-CO-NH-(CH_2)_2-$ Ph;

R^4 represents H, CH_3 , methoxy, halogen, *i*-propyl, 3-nitro-phen-1-yl, $NHCOCF_3$, benzo[1,3]dioxol-5-yl, $NHCOCH_3$, 4-Carbamimidoyl-phenylazo, 3-Hydroxy-4-carboxyl-phenylsulfanyl or 1,3-Dioxo-indan-2-yl;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form



R^{13} represents C_{1-2} alkyl, OH, $O(CH_2)_{1-2}-NH_2$, H, or



14. (original) A compound of Claim 13 wherein

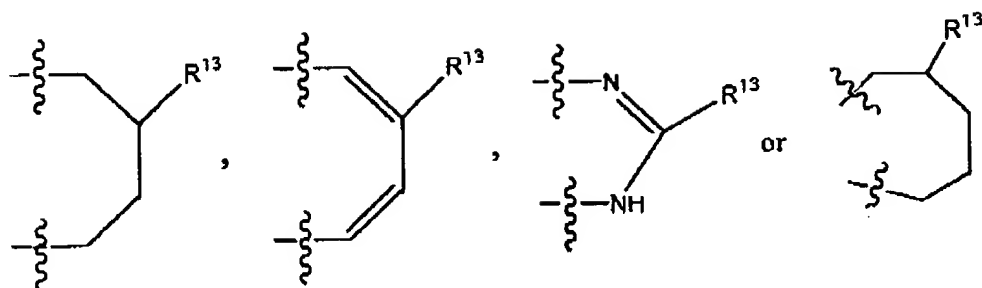
R^3 represents H, OH, NH_2 , OC_{1-2} alkyl, C_{1-4} alkyl, $O-CH_2-OCO-CH_3$, $NH-C(O)CH_3$, $O-CH_2-CO-NH_2$;

R^4 represents H, CH_3 , halogen, *i*-propyl, benzo[1,3]dioxol-5-yl, or 1,3-Dioxo-indan-2-yl;

alternatively, R^2 and R^3 , R^3 and R^4 , or R^4 and R^5 can be taken together to form

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15. (original) A compound of Claim 14 wherein

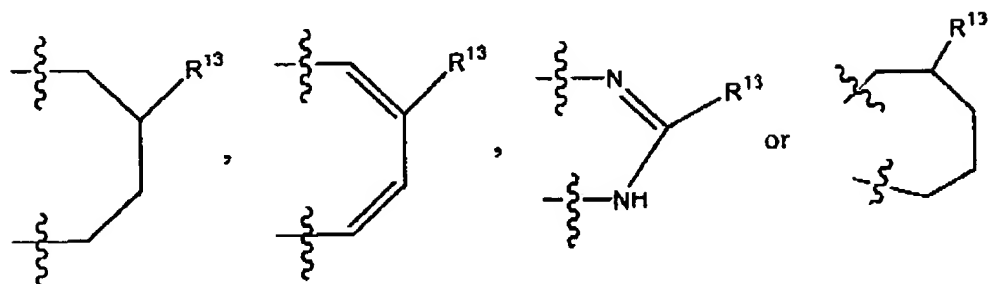
R² represents H or halogen;

R³ represents H, OH or NH₂;

R⁴ represents H, CH₃, halogen or benzo[1,3]dioxol-5-yl;

R⁵ represents H; and

R³ and R⁴ or taken together to form



16. (original) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound or a pharmaceutically acceptable salt of a compound of Claim 10.

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17. (original) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound according to Claim 13 or a pharmaceutically acceptable salt thereof.

Claims 18-31 (canceled)